

Appln. No. 09/668,865
Amendment dated April 28, 2004
Reply to Office Action of January 29, 2004

REMARKS/ARGUMENTS

Reconsideration of the present application, as amended, is respectfully requested.

The January 29, 2004 Office Action and the Examiner's comments have been carefully considered. In response, claims are cancelled and added, and remarks are set forth below in a sincere effort to place the present application in form for allowance. The amendments are supported by the application as originally filed. Therefore, no new matter is added.

PRIOR ART REJECTIONS

In the Office Action, claims 1, 3-8 and 10-15 are rejected under 35 USC 102(b) as being anticipated by USP 5,719,967 (Sekine). Claims 2 and 9 are rejected under 35 USC 103 as being unpatentable over Sekine in view of USP 5,783,356 (Bosschaerts et al.).

In response, claims 1-15 are cancelled and new claims 16-27 are added. New claims 16-27 are patentable over the references of record for reasons, inter alia, set forth below.

The present claimed invention as defined by new claim 16 is directed to a method for producing a print by exposing an image onto a photosensitive material. The method includes the steps of:

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extracting character image data and pictorial image data separately from original image data, which originally include the character image data and the pictorial image data;

applying a first image-producing operation to the character image data by employing a first LUT for converting image values of pixels, represented by the character image data, to first exposure control values, so as to generate revised character-image data, which represent the first exposure control values;

applying a second image-processing operation to the pictorial image data by employing a second LUT for converting image values of pixels, represented by the pictorial image data, to second exposure control values, so as to generate revised pictorial-image data, which represent the second exposure control values;

combining the revised character-image data with the revised pictorial-image data, so as to generate processed image data, which include both the revised character-image data and the revised pictorial-image data; and

forming an output image on the photosensitive material, based on the processed image data, so as to produce the print.

According to the present claimed invention, when forming the character image and the pictorial image on the same photosensitive material, since the character image data and the

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pictorial image data, both extracted from the original image data, are separately processed by employing the first LUT and the second LUT, it becomes possible to automatically conduct two kinds of exposure controls, being different relative to each other, corresponding to the character image and the pictorial image. This results in improvement of the harmonization of the character image with the pictorial image with regard to the color-balance and the image quality on the same print, without consuming much time and without requiring a high-level of proficiency of the operator.

The above described claimed structural features and advantageous effects of the present invention as recited in new claim 16 are not disclosed, taught, or suggested by any of the cited prior art references, when taken either alone or in combination.

Sekine discloses an image-forming apparatus capable of generating multi-value image data to be reproduced as a hard copy. The Examiner asserts that the image-forming apparatus of Sekine is equivalent to the print-producing apparatus of the present claimed invention.

It is apparent, however, that the LUTs, employed in the image-forming apparatus of Sekine, are conventional pattern-matching tables merely utilized for discriminating the blocked

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images. When the edge of a character pattern is detected, a shape-converting operation for the character pattern is conducted, so as to remove jaggies (aliasing) appearing in curved or straight lines of characters. The LUTs disclosed by Sekine, however, are never employed for conducting an exposure controlling operation for harmonizing the character image with the pictorial image on the same print as achieved by the present claimed invention. Accordingly, the LUTS as taught by Sekine are completely different from those of the present claimed invention. Sekine fails to disclose the structure and features for controlling an exposing operation of the hybrid-image including characters and pictorial images so as to harmonize them with each other and improve the total color-balance of the produced print.

That is, the present claimed invention as defined by claim 16 is patentable over Sekine because the reference does not disclose, teach or suggest, inter alia:

applying a first image-processing operation to said character image data by employing a first LUT for converting image values of pixels, represented by said character image data, to first exposure control values, so as to generate revised character-image data, which represent said first exposure control values; and/or

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applying a second image-processing operation to said pictorial image data by employing a second LUT for converting image values of pixels, represented by said pictorial image data, to second exposure control values, so as to generate revised pictorial-image data, which represent said second exposure control values; and/or

combining said revised character-image data with said revised pictorial-image data, so as to generate processed image data, which include both said revised character-image data and said revised pictorial-image data (see claim 16, lines 7-22).

Accordingly, a person of ordinary skill in the art at the time the present invention was made would not have arrived at the claimed structural features and advantageous effects of the present invention from the teachings of Sekine, since Sekine does not disclose, teach or suggest a print-producing method, which makes it possible to automatically conduct two kinds of exposure controls, being different relative to each other, corresponding to the character image and the pictorial image, without consuming much time and without requiring a high-level of proficiency of the operator.

Bosschaerts et al. does not close the gap between the present claimed invention as defined by Sekine and claim 16. Therefore, claim 16 and claims 17-21 which are either directly or

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indirectly dependent thereon are patentable over all of the references of record when taken either alone under 35 USC 102 or in combination under 35 USC 103.

Claim 22 is an independent apparatus claim corresponding to method claim 16. Claim 22 is patentable over the cited references for reasons, inter alia, set forth above in connection with claim 16.

Claims 23-27 are either directly or indirectly dependent on claim 22 and are patentable over the cited references when taken either alone under 35 USC 102 or in combination under 35 USC 103.

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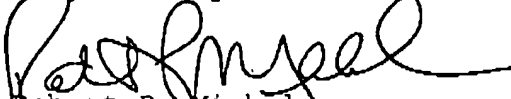
Entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner disagrees with any of the foregoing, the Examiner is respectfully requested to point out where there is support for a contrary view.

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If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



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